

# Weekly Report

June 17, 2018

## 1 Work

1. 本周提交了AMTG和location2vec两篇论文。
2. Memory GAN的实验中，IS指标略有提升，新增的FID指标与原文章AttnGAN的结果相比略有差距。

### 1.1 工作进度

Table 1: 工作进度

项目	进度	截止时间
图布局方法扩展	代码重构基本完成	
降维	开始加入层次方法	6.30
专利	完成撰写，等待律师回复	
AAAI投稿 (Memory GAN)	新增FID指标，但性能离原文章还有所差距	9.1

## 2 Paper Reading

### 2.1 I2T2I: LEARNING TEXT TO IMAGE SYNTHESIS WITH TEXTUAL DATA AUGMENTATION

基于文本生成图片的文章，其中模型学习了文本和图片的联合嵌入。

### 2.2 TextureGAN: Controlling Deep Image Synthesis with Texture Patches

基于纹理和轮廓生成图片。



Figure 1: I2T2I

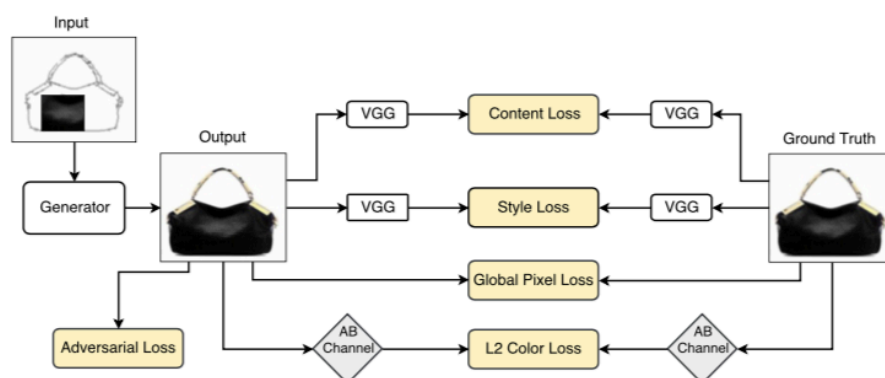


Figure 2: TextureGAN

## 2.3 A Note on the Inception Score

文章介绍了GAN的评价指标IS，其中指明了IS的一些缺点，包括不稳定性（来源于Inception网络实现的不同以及数据集的不同）

## 2.4 ChatPainter: Improving Text to Image Generation using Dialogue

从文本生成图片，除了使用描述图片的一句话，还增加了一些问答信息。

Table 1. An example of the input data, the corresponding dataset image, and the image generated by our best ChatPainter model.









Input	Dataset image	Generated image
Caption: adult woman with yellow surfboard standing in water.		
Q: is the woman standing on the board?		
A: no she is beside it.		
Q: how much of her is in the water?		
A: up to her midsection.		
Q: what color is the board?		
A: yellow.		
Q: is she wearing sunglasses?		
A: no.		
Q: what about a wetsuit?		
A: no she has on a bikini top.		
Q: what color is the top?		
A: orange and white.		
Q: can you see any other surfers?		
A: no.		
Q: is it sunny?		
A: the sky isn't visible but it appears to be a nice day.		
Q: can you see any palm trees?		
A: no.		
Q: what about mountains?		
A: no.		

Figure 3: ChatPainter